



SPECIFIC OPERATIONS CHECKLIST

CARPET AND CARPET CUSHION PROGRAM

Instructions to the Assessor: The checklist addresses specific accreditation criteria prescribed in Section 285.33, *Criteria for Accreditation*, of the Carpet and Carpet Cushion (CCC) Program Handbook. Included also are instructions and comments sheets used for observing actual demonstrations of the performance of selected test methods. These criteria **do not** supersede the *Criteria for Accreditation*, based on Section 285.33 of NIST Handbook 150, which are addressed in the GENERAL OPERATIONS CHECKLIST.

Place an "X" beside any of the following items which represent a deficiency. Place a "C" beside each item on which you are commenting for other reasons. Record the item number and your deficiency explanation and/or comments on the appropriate comment sheet(s). Place a check beside all other items you observed or verified at the laboratory.

1 QUALITY SYSTEM

- ☐ 1.1 The quality manual provides detailed procedures, including descriptions of equipment, that the laboratory follows in performing carpet and carpet cushion tests.
- ☐ 1.2 The quality manual lists the types of carpet and carpet cushion products that the laboratory can test for each test method for which accreditation is sought.
- ☐ 1.3 The quality manual describes practices for maintenance and calibration of the equipment used in conducting the tests on carpet and carpet cushion products.

2 PERSONNEL

- ☐ 2.1 Personnel competency for the Carpet and Carpet Cushion program includes the applicable portions of the following, as a minimum:
 - ☐ 2.1.1 general requirements of the carpet and carpet cushion test methods;
 - ☐ 2.1.2 carpet and carpet cushion specimen preparation and/or mounting techniques;
 - ☐ 2.1.3 carpet and carpet cushion pretest temperature and humidity conditioning procedures; and
 - ☐ 2.1.4 techniques for measuring ambient thermal and relative humidity conditions.

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- 2.2 Additionally, each staff member has adequate training and competency to perform assigned duties including, as appropriate, conducting the following test methods:
- _____ 2.2.1 chemical analysis of fiber types;
- _____ 2.2.2 colorfastness to crocking tests;
- _____ 2.2.3 colorfastness to light tests;
- _____ 2.2.4 electrostatic tests;
- _____ 2.2.5 flammability and smoke generation tests;
- _____ 2.2.6 mechanical tests such as compression, tension, and delamination strength;
- _____ 2.2.7 pile density, thickness and weight;
- _____ 2.2.8 cushion density, thickness and weight;
- _____ 2.2.9 fiber analyses; and
- _____ 2.2.10 oven aging tests.
- 2.3 Laboratory personnel conducting:
- _____ 2.3.1 UV colorfastness tests know the AATCC fading unit scale;
- _____ 2.3.2 tests of colorfastness by crocking know the AATCC color transference chart;
- _____ 2.3.3 tests of colorfastness have received the necessary test for color blindness;
- _____ 2.3.4 fiber analysis using chemical methods are familiar with the solubilities of the different fiber types and perform the proper extraction method for the type of fiber under analysis; and
- _____ 2.3.5 oven aging tests according to D 3676 (Section 16) follow the standard's criteria for pass or fail of the specimen in a consistent manner.
- _____ 2.4 Laboratory personnel removing attached cushion from carpet samples do so without damage to the resulting carpet and cushion specimens.
- _____ 2.5 Laboratory personnel evaluating colorfastness or fading have undergone a recognized standard color vision test at least annually.

3 EQUIPMENT AND REFERENCE MATERIALS

- ☐ 3.1 Analytical balances are capable of measuring mass to the required level of accuracy and sensitivity as specified in the given test method.
- ☐ 3.2 Dimension measuring devices (e.g., rules, gages, and scales) are capable of measuring dimensions to the required level of accuracy and sensitivity as specified in the given test method.
- ☐ 3.3 The pressor feet of compression test apparatus have the proper size as specified in the given test method.
- ☐ 3.4 Chemical reagents have the required grade and purity.
- ☐ 3.5 Where required, water conforms to Type I grade of ASTM Specification D 1193.
- ☐ 3.6 Laboratories conducting microscopical analysis of fibers have the proper microscope and accessories, as well as the required stain.
- ☐ 3.7 Laboratories conducting tension tests have the proper accessory equipment such as dies, clamps, grips, and elongation markers as specified in the test method.
- ☐ 3.8 Test shoes for electrostatic propensity tests are properly cleaned and maintained.

4 CALIBRATION AND TEST METHODS

- ☐ 4.1 The latest version of the standards for which the laboratory seeks accreditation are available.
- ☐ 4.2 A laboratory seeking accreditation in conjunction with the HUD certification programs has available the latest version of either UM 44 or UM 72, or both as applicable.
- ☐ 4.3 Carpet and carpet cushion specimens are properly prepared and maintained in the appropriate conditioned state before testing.
- ☐ 4.4 Carpet and carpet cushion tests are performed correctly.
- ☐ 4.5 Samples and test specimens are uniquely identified for correlation with the related test report and records.
- ☐ 4.6 Test data forms (as required by the reference standard or developed in-house) are properly completed.
- ☐ 4.7 The laboratory maintains a dated log book or record for the tests it performs.



_____ 4.8 Test equipment, devices, and instruments meet the test requirements and calibration conditions. Specific calibration requirements for the CCC program are:

- in accordance with the manufacturer's recommendation;
- the test method; or
- as specified below:

<i>Apparatus/Instrumentation</i>	<i>Calibration or Verification Frequency</i>
* automatic data logging and readout	annually
black panel thermometer unit	annually
wet/dry bulb thermometers	annually
drying ovens	annually
balances	annually
heat flux meters	annually
radiometers	annually
pyrometers	annually
tensile/compression testing machines (including load cells)	annually
dimensional measurement devices (calipers, micrometers, etc.)	annually
compressometer	annually
* ammeters, ohmmeters, voltmeters, wattmeters	annually
xenon-arc test chamber including lamp	every 6 months
electrostatic detection equipment	every 6 months
* If the calibration of the equipment is shown to vary due to the lack of modern solid-state electronics, then the entry under <i>Frequency</i> shall be 6 months.	

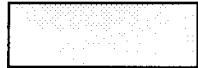
_____ 4.9 The test methods are performed correctly, and are appropriate for the given carpet and carpet cushion specimens.

_____ 4.10 Tests are conducted within the specified temperature and humidity conditions.

_____ 4.11 Test reports are complete and accurate for the given carpet and carpet cushion specimens.

_____ 4.12 Cushion specimens prepared by removal of attached cushion from carpet samples have adequate thickness and are flaw-free so that they may be properly tested.

_____ 4.13 Cushion test specimens have the proper dimensions or volume as specified by the appropriate standard.



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- _____ 4.14 Specimens are compressed to the specified thickness when conducting compression testing; the compression is maintained for the specified period of time.
 - _____ 4.15 Laboratories conducting compression set tests according to ASTM D 3574 (Test D) maintain the relative humidity in the test oven at $5 \pm 1\%$.
 - _____ 4.16 Laboratories conducting colorfastness tests have standard color scales available.
 - _____ 4.17 Laboratories conducting electrostatic propensity tests have space that is adequate and properly conditioned.
 - _____ 4.18 Electrostatic propensity tests are conducted on a given specimen on three different days.
 - _____ 4.19 Laboratories conducting the AATCC 16, Option E method on attached carpet cushion specimens have a written description of the procedures used to evaluate the UV-exposed specimens.

